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## Natural Hazards

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| <b>13.0 NATURAL HAZARDS</b> |
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**I. STATUTORY REQUIREMENTS**

Government Code Section 65302(g) states the following:

*The General Plan shall include a safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence and other geologic hazards known to the legislative body; flooding; and wild land and urban fires.*

This section addresses natural hazards which include which include flooding and tsunami and tidal/marine hazards as they pertain to public safety.

## **II. OPPORTUNITIES AND CONSTRAINTS (ISSUES)**

### ***A. Flooding***

1. The City should evaluate the impacts of new hillside developments on storm drainage and runoff, particularly during high intensity rainfall events.
2. Areas of the City are subject to 100-year floodplains, which could impact future development.

### ***B. Tsunami and Tidal/Marine Hazards***

1. The impact of tsunamis and tidal/marine hazards on coastal structures and the beach/bluff environment.
2. Beach/bluff erosion and protection of coastal structures.

### **III. OVERVIEW OF NATURAL HAZARDS POLICIES**

This portion of the Natural Hazards Element establishes goals, objectives, policies and implementation programs to provide for the protection of human life and property from such hazards. The General Plan process will require a total commitment from the local legislative body in the adoption of these policies for the General Plan's goals and objectives to be realized. The policies stated in this section are intended to contain a direct relationship to the desired goals of the community and are the legislative tools, which the local governments can utilize to achieve the vision for the community's future.

This Element of the General Plan attempts to reduce the potential for human injury and property damage throughout the City. Specifically, the Natural Hazards policies address the following:

#### ***A. Flooding***

1. Maintaining of flooding control systems.
2. Restricting of development in flood hazardous zones which lack adequate mitigation.
3. Establishing and maintaining of emergency response operations for flooding.

#### ***B. Tsunami and Tidal/Marine Hazards***

1. Obtaining available information on tsunami and tidal/marine hazard susceptibility.
2. Minimizing the potential for damage and injury in the community.

#### **IV. GOALS, OBJECTIVES AND POLICIES**

The following presents the goals, objectives, and policies for natural hazards in the City of San Clemente. Implementing programs are contained in the following sub-section. At the end of each policy is listed a capital "I" and number in parentheses which refers to the pertinent implementing program.

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##### ***A. Flooding***

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###### **Goal**

Protect the lives and properties of residents and visitors to the City from flood hazards.

###### **Objective**

- 13.1 Maintain control systems and restrict development to minimize hazards due to flooding.

###### **Policies**

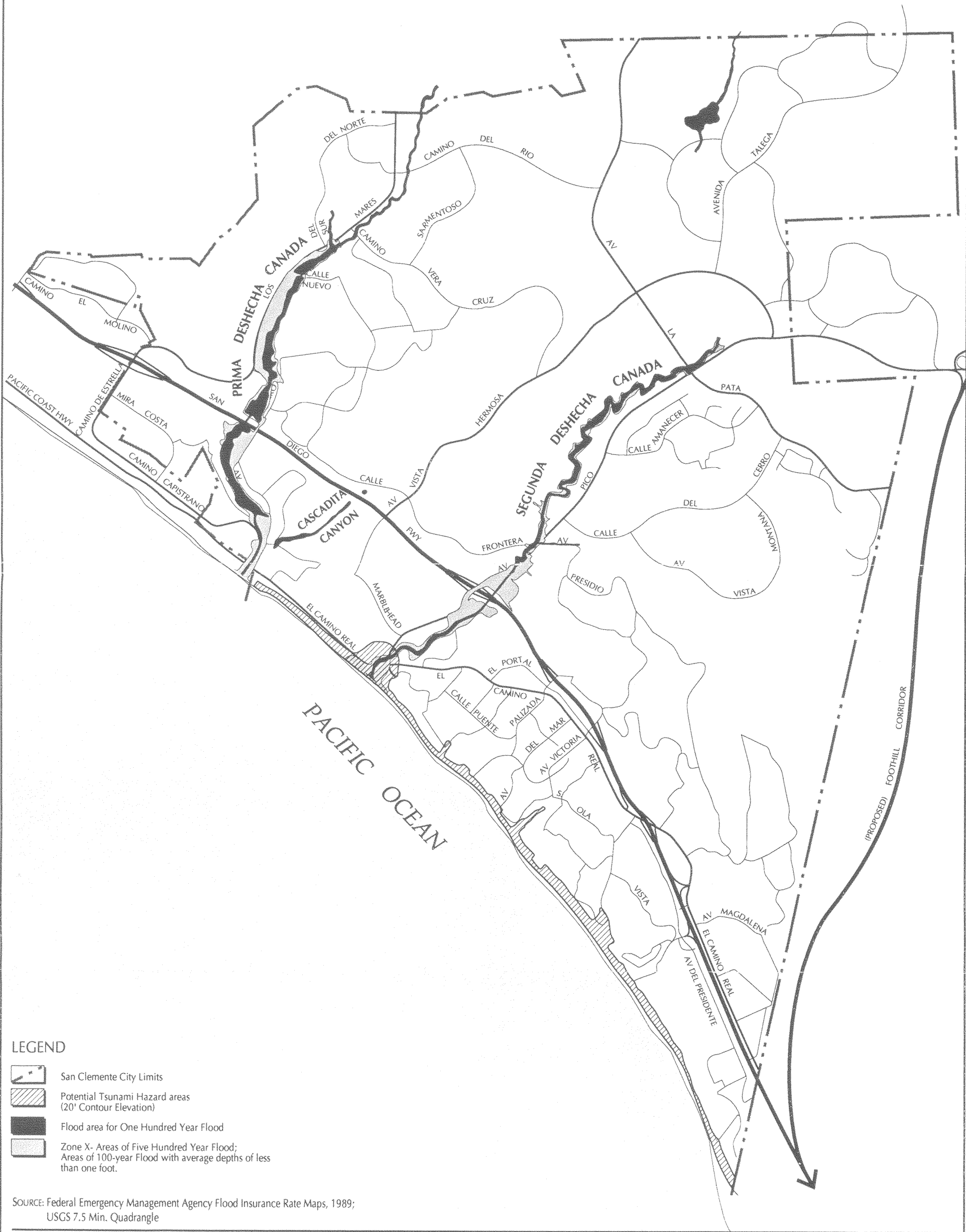
- 13.1.1 Use natural watercourses as the City's primary flood control channels whenever feasible (*I 13.1*).
- 13.1.2 Require that property owners keep natural drainage courses on their sites free of obstructions such as structures and dams, which may adversely affect flooding on the site or downstream properties (*I 13.1*).
- 13.1.3 Prohibit land use development within the 100-year flood zone unless adequate mitigation is provided against flood hazards (refer to **Figure 13-1**) (*I 13.1*).
- 13.1.4 Update existing drainage and retention studies and improvement plans accordingly (*I 13.2*).
- 13.1.5 Implement Federal, State and County flood control regulations as appropriate (*I 13.2*).
- 13.1.6 Require that all new storm drainage facilities be constructed in accordance with County design specifications (*I 13.1*).

###### **Objective**

- 13.2 Establish and maintain emergency response operations for flooding.

###### **Policies**

- 13.2.1 Define and coordinate appropriate procedures for police, fire and other agency emergency responses during flooding, consistent with Federal, State and County regulations, as well as the City's Emergency Response and Operations Plans (*I 13.3*).



**FLOODING AND MARINE HAZARDS**

SAN CLEMENTE GENERAL PLAN



FIGURE 13-1

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***B. Tsunamis and Tidal/Marine Hazards***

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**Goal**

Protect life, prevent human injury, and reduce the potential for property damage from tsunami and tidal/marine hazards, and promote the collection of more complete information on susceptibility to these hazards throughout the waterfront and low-lying areas of the City.

**Objective**

- 13.3 Obtain, update, and make available information regarding tsunami and tidal/marine hazards susceptibility, and promote policies and programs to minimize the potential for damage in the community.

**Policies**

- 13.3.1 Identify tsunami susceptible areas, and require that specific measures be taken by the developer, builder or property owner, as necessary, to prevent or reduce damage from these hazards and the risks upon human safety (see **Figure 13-1**) (*I 13.1 and I 13.4*).
- 13.3.2 Consider the City's participation in and, receipt of, information from the National Weather Service's Weather Wire System for Local Tsunami Warnings (*I 13.5*).



## **V. IMPLEMENTATION PROGRAMS**

The following programs implement the flooding and tsunami hazard policies for the City of San Clemente. Each program is preceded by a capital "I" and a number, which is referenced by the pertinent policy, which it implements in the preceding section (noted in parentheses at the close of each policy).

### ***A. Flooding Hazards***

- I 13.1 Development proposals for projects within the 100-year flood plain shall be reviewed for consistency with Federal Emergency Management Agency State, County and City requirements.

A site specific hydrology study which meets the standards of the City of San Clemente and the County Flood Control District shall be prepared by a qualified civil engineer as a prerequisite to the approval of projects within the 100-year flood plain. The hydrology study shall be reviewed by the City Engineer and shall be subject to City Engineer approval. Staff recommendations regarding the facilities necessary to mitigate flooding hazards resulting from project implementation and/or impacts to flood facilities shall become conditions of project approval. Mitigation against flooding hazards must be provided prior to the issuance of certificates of occupancy.

*Responsibility:* City of San Clemente Community Development/Engineering Division in cooperation with the Orange County Flood Control District.

*Funding Source:* Administrative: City of San Clemente General Fund and/or development application fees.

Hydrology Study: project applicant funds.

*Schedule:* Ongoing as development applications are submitted or as funding permits.

- I 13.2 Update and implement existing drainage and retention studies and plans and initiate appropriate capital improvement programs.

*Responsibility:* City of San Clemente Community Development/Engineering Division in cooperation with the Orange County Flood Control District.

*Funding Source:* City of San Clemente General Fund and/or other available funding sources approved by the City.

*Schedule:* As necessary, or as funding permitted.

**B. Emergency Response**

- I 13.3 Maintain the City's Emergency Response and Operations Plan, periodically reviewing and updating its procedure in response to incidences of flooding as conditions and information warrants.

*Responsibility:* City of San Clemente Community Development Department.

*Funding Source:* City of San Clemente General Fund and/or other available funding sources approved by the City.

*Schedule:* As needed when flood conditions and information changes or as funding permits.

**C. Tidal Hazards**

- I 13.4 Ensure through the development review process, that proposed projects located in the tidal hazard area (**Figure 13-1**);

- Are sensitively designed not to exacerbate beach/bluff erosion and the need for sand replenishment along city beaches.
- Plan for expedient evacuation of residents and employees during Tsunami Warning periods, by providing adequate ingress/egress from hazard zone.
- Consider design options, which reduce the potential for damage to private property and threats to public safety, i.e., raised foundations, ground floor parking with upper level uses.

*Responsibility:* City of San Clemente Community Development Department.

*Funding Source:* City of San Clemente General Fund and/or development application fees.

*Schedule:* Ongoing as development projects are submitted or as funding permits.

- I 13.5 Use the Weather Wire's information from the National Weather Service to detect and warn of tsunami occurrences and other weather conditions in the region. This system should be monitored by the Marine Safety Division, which presently receive daily reports on weather conditions for marine operations. This warning system should be incorporated into the City's Emergency Preparedness Plan.

*Responsibility:* City of San Clemente Beaches, Parks, and Recreation Department in cooperation with the Emergency Response Committee and other appropriate City departments.

*Funding Source:* City of San Clemente General Fund and/or other available funding sources approved by the City.

*Schedule:* Monitor conditions daily and report annually on suggested modifications to the Emergency Preparedness Plan.